95. A 44-year-old patient with history of deep vein thrombosis has been taking Warfarin 2.5 mg for 6 months with good laboratory control presented to your hospital for routine follow up. Laboratory investigation, shows that the international normalization (INR) value of 4.5.

What is the most appropriate next step for this patient?
(A) Withhold administration of Warfarin
(B) Administer Vitamin K via slow intravenous injection
(C) Continue with the same therapy
(D) Administer Prothrombin complex concentrates

96. A 68-year-old man with stable angina, who is currently receiving Simvastatin 40mg daily with well controlled lipid levels (TC 3.8mmol/L; LDL-C 1.8mmol/L; HDL-C 0.9mmol/L, triglycerides 1.3mmol/L). He has been on Simvastatin for the past 7 years, and has complained previously about muscle aches, but on this visit he states that his muscle pain has become more troublesome. He asks, if there is something else he can take to control his cholesterol.

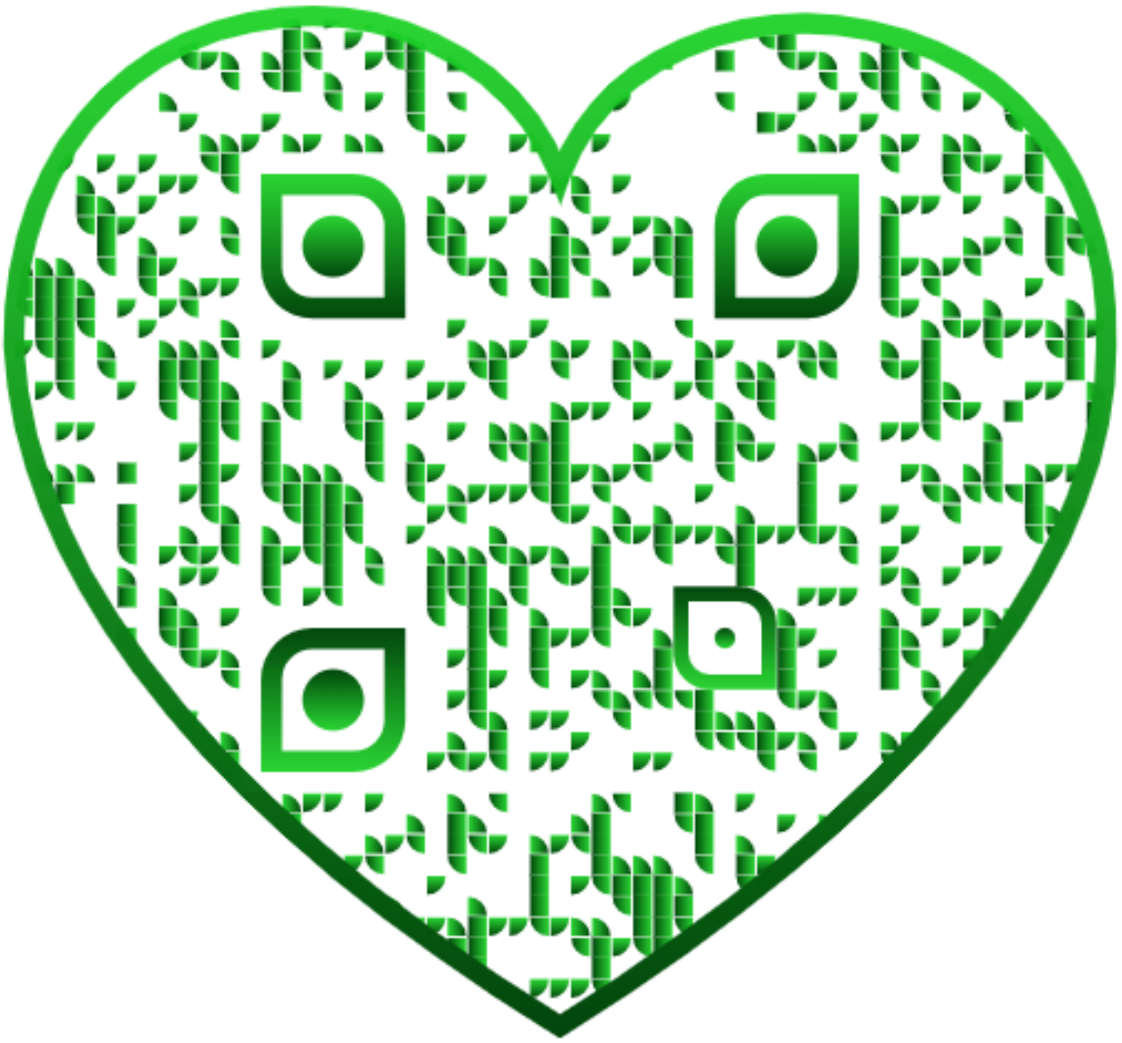
What is the best management option you recommend for this patient?
(A) Replace Simvastatin 40 mg daily with Atorvastatin 40 mg daily
(B) Discontinue Simvastatin
(C) Decrease dose of Simvastatin to 20 mg daily
(D) Continue with Simvastatin 40 mg daily

97. A Nine-year-old male child with severe asthma came to hospital. He was treated with Albuterol via Nibulaizer in emergency and discharged with inhaled Beclomethasone. The family is informed to give high dose of Beclomethasone for better control of the symptom.

What risk does this child may develop if he takes high dose of Beclomethasone?
(A) Hypoglycemia
(B) Growth suppression
(C) Cushing syndrome
(D) Cataract formation

98. A 42-year-old man who came to the hospital was diagnosed for moderate persistent asthma. He had intermittent asthma symptoms when he was 30 years of age, and he had never smoked. A physician planned for better control of patient's asthma symptoms with drug.

What is the most appropriate medication?
(A) Tiotropium metered-dose aerosol inhalation
(B) Salmeterol dry powder aerosol inhalation
(C) Mometasone dry powder aerosol inhalation
(D) Albuterol metered-dose aerosol inhalation



17. A physician working at the inpatient department prescribes 1gm of Ceftriaxone injection IV BID for one day for an admitted patient. Ceftriaxone is only available as 0.25 gm per vial in the dispensary.

What actual amount of Ceftriaxone should be dispensed?

(A) 8 vials of 0.25gm Ceftriaxone
(B) 6 vials of 0.25gm Ceftriaxone
(C) 4 vials of 0.25gm Ceftriaxone
(D) 2 vials of 0.25gm Ceftriaxone

18. An experimental pharmacologist investigating an ant-diabetic activity of selected medicinal plant conducted safety evaluation of extract Y. Up on experimentation he observes that the extract killed half of the tested mice at a dose of 60 mg/ml and also lower blood glucose level in half of experimental mice at a dose of 20 mg/ml.

What is the therapeutic index of extract Y?

(A) 1/3
(B) 1/2
(C) 2
(D) 3

19. A pharmacist working in a community pharmacy contacted by a patient having a prescription dictating iron solution with 55 mg of elemental iron. The formulation available in the dispensary was 5 mg elemental iron in 1 teaspoonful.

How many milliliters of solution should be dispensed?

(A) 45 milliliters
(B) 55 milliliters
(C) 65 milliliters
(D) 75 milliliters

20. A 35-year-old female is diagnosed for febrile seizure. She comes with a prescription containing Phenobarbital with the appropriate dosage. She is taking oral contraceptive pill for a long period of time. She is not voluntary for other family planning methods including condom. The pharmacist communicates the issue of drug interaction to the prescriber and the prescriber asks the pharmacist for alternatives.

What should be the response of the pharmacist?

(A) Increasing the dose of Phenobarbital
(B) Increasing the dose of oral contraceptive pill
(C) Decreasing the dose of oral contraceptive pill
(D) Decreasing the dose of Phenobarbital

51. A patient with inflamed skin comes with a prescription for topical medication preparation in the hospital pharmacy compounding room. A pharmacist is ordered to prepare a medication in the form which shows excellent persistence at the site of action and produce high occlusive effect.

What type of semisolid dosage form should be prepared?

(A) Gel
(B) Paste
(C) Ointment
(D) Cream

52. A physician wants to prescribe drug 'X' in the form of a paste for his patient with dermatological disease to reduce its systemic toxicity.

What should the physician know about this drug before selecting this dosage form?

(A) Local irritation
(B) Absorption extent
(C) Less local delivery
(D) Short retention time

53. A pharmacist considers different physicochemical properties of drug and excipients to select appropriate base for an ointment and cream formulation.

Which property is required for highly localized drug delivery and long duration?

(A) Less spreadable
(B) Less viscous
(C) Less fatty base content
(D) High water content

54. A pharmacist plans to prepare a topical cream using hard paraffin as an appropriate base.

Which base properties has the pharmacist most likely considered to select this base?

(A) Less emollient
(B) More occlusive
(C) Less duration of contact
(D) Ease of washing

47. A pharmacist wants to manufacture dry powder inhalers (DPI) with good aerosolization characteristics. He selected appropriate ingredients (API and carrier) and filled using the filling machine.

Which formulation optimization will improve the aerosolization?
(A) Using β-lactose monohydrate as a carrier
(B) Using salt form of API with high sorption
(C) Using crystalline API and lactose
(D) Using of API with low Melting point (<80 ^{0}C)

48. You were involved in a study conducted in a drug firm's R & D unit. The firm produced one batch of tablets and wants to evaluate their quality. Tablets were formulated from an insoluble active pharmaceutical ingredient and you were interested in those parameters that are important for bioavailability predictions.

What is the most critical parameter that must be tested?
(A) Disintegration
(B) Dissolution
(C) Friability
(D) Absorption

49. A physician wants to prescribe drug 'Y' for both local and systemic effect. Because of its gastric irritating effect, the physician requested the drug to be formulated in the form of an ointment for topical administration.

Which base type a pharmacist uses to increase the drug's percutaneous absorption?
(A) Lanolin
(B) Hard paraffin
(C) Oil in water emulsion
(D) Polyethylene Glycol mixture

50. A pharmacist was preparing and dispensing medicated creams for his patients. Few days later, a patient who didn't like the cooling effect of the cream visited the pharmacy and complained the cooling sensation after rubbing the cream to the application area. Thus, the pharmacist planned to change the base to minimize the cooling effect of the cream.

Which type of base needs to be changed?
(A) From hard Paraffin to Lanolin
(B) From soft Paraffin to hard Paraffin
(C) From Lanolin to Polyethylene Glycol
(D) From W/O emulsion to O/W emulsion

44. You are working in a small scale granulation unit in a drug firm. If you want to scale up the granule preparation using the fluid bed granulator, variables such as air temperature, spray nozzle location, bed humidity, spray rate, and atomization pressure can all affect the granule characteristics. Control of such parameters to yield a consistent product at a large scale constitutes a successful scale-up strategy. You are planning to limit the number of process parameters to control for scale-up purposes.

What is the most appropriate critical process of parameter you prefer?
(A) Bed humidity and atomizing air pressure
(B) Spray rate and nozzle location
(C) Air temperature and spray rate
(D) Bed humidity and nozzle location

45. A pharmacist is requested to prepare aspirin tablets. Initially, he formulated granules using roller compactor. When the prepared granules were characterized, they form soft compact or friable granules. Before proceeding to the main compression process, the pharmacist has to reformulate the granule by controlling process and formulation parameters.

What is the most likely importance of using remedy in the process?
(A) To decrease compaction force
(B) To decrease roller speed
(C) To decrease compressible binder
(D) To increase blend time of powder and lubricant

46. A pharmacist extracting a substance from a plant was using suction filtration technique but during filtration the intended amount of extract (filtrate) was not obtained.

What should the pharmacist do to solve this problem?
(A) Decreasing the surface area of the filter media
(B) Reducing the suction pressure
(C) Incorporation of talc into the slurry
(D) Increasing resistance using filter beds

40. Assume, you are the head of a hospital pharmacy and pharmacist working in the drug store submitted a list of expired pharmaceuticals to get your advice on the next step in the disposal of these pharmaceuticals.

What is the most appropriate consultation you should give the pharmacist?
(A) Report to the drug and therapeutics committee
(B) Separate the pharmaceuticals from the stock
(C) Return the pharmaceuticals to the supplier
(D) Dispose the pharmaceuticals by incineration

41. A pharmacist working in medicines disposal committee has sorted a list of wasted products and wants to apply an appropriate method of disposal for tablets, capsules, vials, plastic syringes, and ampoules.

What is the most applicable method for disposal of some of the products?
(A) Incineration method for syringes and ampoules
(B) Incineration method for tablets capsules
(C) Incineration method for vials and ampoules
(D) Incineration method for syringes and vials

42. A pharmacist working as a store manager in a referral hospital needs to manage expired pharmaceuticals, including; anti-infectives, anti-inflammatory, disinfectants and neurological drugs.

Which of the paired products are more hazardous?
(A) Anti-infectives and anti-inflammatory
(B) Anti-inflammatory and disinfectants
(C) Disinfectants and neurological drugs
(D) Anti-infectives and disinfectants

43. A Pharmacist works in the R and D department of drug manufacturing company. While he was determining the physico-chemical properties, he found out that the drug was compressible and with good flow property, but unstable in acidic environment.

In what type of dosage form the drug should be formulated?
(A) Chewable tablet
(B) Enteric coated tablet
(C) Sugar coated tablet
(D) Film coated tablet

36. A pharmacist working in a hospital pharmacy store received several dosage forms of pharmaceuticals from a supplier. The pharmacist needs to keep the pharmaceuticals according to their proper storage arrangement.

What is the most appropriate storage arrangement to be used?
(A) Liquid products on the lower shelves
(B) Solid products on the lower shelves
(C) Light cartoons on the lower shelves
(D) Safety stocks on the lower shelves

37. A pharmacist was asked to arrange the medicines in the hospital pharmacy store, which is small in size. Thus, the pharmacist has to decide the type of stock classification method that enables efficient utilization of the storage space.

What is the most appropriate stock classification method the pharmacist should use?
(A) Alphabetical order
(B) Dosage form type
(C) Commodity code
(D) Therapeutic category

38. In preparation for a national vaccination campaign, the Pharmaceutical Fund and Supply Agency (PFSA) procured the required vaccine eight months before the campaign. The vaccine was then kept frozen in the warehouses of PFSA till the time of the campaign.

What is the most likely vaccine to be used in the campaign?
(A) DT
(B) DPT
(C) Measles
(D) Oral polio

39. A pharmacist working in medicines disposal committee encountered expired syringes to dispose. The pharmacist wants to choose an appropriate disposal method for the syringes.

What is the most appropriate method to dispose the expired syringes?
(A) Burial on-site
(B) Encapsulation
(C) Autoclaving
(D) Incineration

32. A pharmacist working as a store keeper in a certain hospital wants to set the safety stock level for Amoxicillin 500mg capsules. Suppose the average monthly consumption is 500 units and the average lead time is three months.

What is the minimum safety stock quantity of Amoxicillin?
(A) 500 units
(B) 1000 units
(C) 1500 units
(D) 25000 units

33. A pharmacist applies the max-min inventory control system for managing the stock of Metronidazole 250 mg capsules. The maximum and minimum stock quantities of the drug were 4000 and 800 units respectively. Moreover, the consumptions of the drug were 500 units, 500 units and 200 units in the past three consecutive months.

What is the minimum stock level of Metronidazole 250 mg capsules?
(A) 1 ½ months
(B) 2 months
(C) 4 months
(D) 10 months

34. A hospital pharmacy store manager conducts stock assessment of all products every two months. The hospital policy is that the trigger for ordering is the end of the review period for the commodities that are at the minimum level.

Which type of inventory control system is most likely used in the above case?
(A) Continuous ordering max-min system
(B) Standard ordering max-min system
(C) Forced ordering max-min system
(D) Cyclic ordering max-min system

35. A senior pharmacist asked you to sort and appropriately store alcohol, Phenobarbital, ether, diazepam, ceftriaxone, BCG vaccine, insulin and Propranolol. These products are to be stored based on their storage requirements.

What are the most likely products to be placed in a separate store room?
(A) Phenobarbital and diazepam
(B) Ceftriaxone and Propranolol
(C) Insulin and BCG vaccine
(D) Alcohol and Ether

29. Suppose you work in the drug supply management unit of a hospital, which was established ten years back. The hospital mostly purchases its health commodities from local suppliers, unless there is emergency stock-out. The hospital has a complete record of the purchase and utilization of pharmaceuticals. There was also a relatively uninterrupted supply trend of pharmaceuticals. Thus, you decided to quantify an amount of pharmaceuticals for the next budget year.

What is the most appropriate quantification method to use for the above scenario?

(A) Proxy-consumption
(B) Consumption
(C) Morbidity
(D) Service level projection

30. The table below shows budget requirements as well as the results of ABC and VEN analyses for a primary hospital:

Drug's Name	Total price (ETB)	ABC category	VEN category
Amoxicillin 500mg	10,000.00	A	E
Oxytocin injection	1,000.00	B	V
Normal saline solution	6000.00	A	V
Metronidazole capsule	4,00.00	C	E
Mebendazole tablet	2,000.00	B	N
Paracetamol suppository	1,000.00	B	N

Which of the products should be given the highest priority for procurement?

(A) Amoxicillin 500mg
(B) Metronidazole capsule
(C) Normal saline solution
(D) Oxytocin injection

31. A pharmacist working in a hospital's inventory management team wants to select pharmaceuticals for procurement in the next budget year. The pharmacist wanted to purchase all pharmaceuticals in the essential medicines list. However, there was shortage of budget and the pharmacist conducted an ABC-VEN matrix analysis.

What is the most appropriate next step for the pharmacist?

(A) Prioritizing essential and class A items
(B) Prioritizing essential and class B items
(C) Prioritizing fast moving items
(D) Prioritizing vital and class C items

25. A pharmacist member of a hospital drug and therapeutics committee (DTC) recommended the preparation of an essential medicines list and the use of the list in the procurement process. Other members of the DTC wanted to get justifications on the advantages of using the essential medicines list during procurement.

What is the reason of using essential medicines list in the procurement process?
(A) Limiting the quantity of each medicine to be procured
(B) Ensuring availability of medicines at the hospital
(C) Helping the DTC to efficiently hire health professionals
(D) Limiting procurement to products from local suppliers

26. A hospital drug and therapeutics committee (DTC) assigns a pharmacist to help with the selection of medicines for inclusion in the procurement list. For each medicine, the pharmacist wanted to get information on indications for use, dosage schedule, contraindications, side effects and information that should be given to the patient.

What is the most appropriate source of information that should be used?
(A) Hospital formulary manual
(B) Hospital essential medicine list
(C) Standard treatment guideline
(D) National essential medicine list

27. A primary hospital utilized 300, 250, 200 and 450 Packs of Ceftriaxone injection in September, October, November and December, respectively. The lead time for the product is two months with safety stock of 600 packs. The procurement period is also six months.

What would be the maximum stock level of ceftriaxone injection?
(A) 1800 pack
(B) 2400 pack
(C) 3000 pack
(D) 4200 pack

28. Assume, you are a hospital pharmacist engaged in managing the hospital inventory. The lead time for a product is less than three hours.

How is the safety stock and average monthly consumption related with the lead time?
(A) Safety stock is not required since the lead time of the products is zero
(B) The safety stock is equal to the average monthly consumption
(C) The safety stock is twice the average monthly consumption
(D) The lead time doesn't affect the maximum stock level

18. A 19-year-old female brought to the emergency department in comatose state. Her friends reported an evening of heavy drinking to celebrate end of their high school class. Her vital signs show respiratory rate is 12 breaths/minute, which is shallow. Blood pressure of 100/60 mm Hg, pulse rate of 100 beats/minute, and temperature of 36^0C. Arterial blood gas measurement shows a PH of 7.3; PCO_2 of 55mmHg; HCO_3 of 17 mEq/L.

What is the most likely abnormality encountered in this patient?

(A) Metabolic Acidosis
(B) Respiratory Acidosis
(C) Peptic Ulcer disease
(D) Metabolic Alkalosis

19. A 42-year-old man with a history of psoriasis presents with diffuse, erythematous plaque-like lesions now extending over 80% of his body. The areas have become inflamed, and application of his maintenance topical medication (anthralin) causes pain and irritation. He expresses frustration with the messiness of the current topical regimen. He is free of cardiovascular, renal or hepatic disease and takes no systemic medications.

What is the appropriate systemic therapy recommended for psoriasis in this patient?

(A) Diphenhydramine
(B) Methotrexate
(C) Tazarotene
(D) Tumor necrosis factor-α

20. A 36-year-old female patient with a long history of chronic idiopathic urticaria came to a hospital for some advice. Her skin disease is usually well controlled with an occasional dose of Cetirizine which she buys over the counter. She has recently begun taking Ibuprofen for muscular pain associated with her marathon training, but her urticaria has become much worse and is flaring on a daily basis. She is also a known heart failure patient taking Furosemide, Enalapril and Digoxin.

Which drug is responsible for the deterioration of her urticaria?

(A) Furosemide
(B) Enalapril
(C) Digoxin
(D) Ibuprofen

cause urticaria disease

15. A 74-year-old man comes to the emergency department complaining of chest pain. His medical history is significant for advanced type 2 diabetes mellitus with retinopathy, peripheral vascular disease, and advanced coronary artery disease. He was sent to the cardiac catheterization laboratory for a percutaneous coronary intervention. Immediately before the procedure, Iohexol PO was given to enhance visualization of cardiac arteries. Laboratory investigation on admission shows blood urea nitrogen of 37 mg/dl (normal, 5–20) and serum creatinine of 1.1 mg/ dL (normal, 0.5–1.2). Two days later, rose in baseline renal function tests is seen with blood urea nitrogen of 60 mg/dL and serum creatinine of and 2.0 mg/dL. A 24 hour urine collection shows a urine output of 700 mL.

What is the most likely cause for abnormality in renal function test in this patient?

(A) Diabetic nephropathy
(B) Advanced age
(C) Iohexol administration
(D) Use of catheter

16. A 50-year-old man, who had a long-standing hypertension and renal failure, was being treated with Enalapril 5mg daily and Amlodipine 10 mg BID during the last two months. His blood pressure was found to be 158/108 mmHg and serum biochemistry revealed serum creatinine levels of 110 mmol/L (50–120 µmol/L, Na^+ of 136mmol/L (135–145mmol/l) and K^+ of 5.1mmol/L (3.5–5.0 mmol/L).

Which electrolyte abnormality needs priority management?

(A) Hyperkalemia
(B) Hypernatremia
(C) Hypokalemia
(D) Hyponatremia

17. A 60-year-old man with chronic renal failure, hypertension and dyslipidemia admitted to internal medicine in patient floor with a chief compliant of generalized body swelling. He started on Enalapril 10mg daily, Amlodipine 10 mg daily, Furosemide 40mg IV BID and Simvastatin 10mg at night. His laboratory investigations show a serum creatinine of 110 mmol/L (50–120 µmol/L), serum sodium of 135mmol/L (135–145mmol/l) and serum potassium of 6.2mmol/L (3.5–5.0 mmol/L).

What is the appropriate next step to resolve the drug therapy problem in this patient?

(A) Decrease the dose of Enalapril
(B) Decrease the dose of Amlodipine
(C) Decrease the dose of Simvastatin
(D) Decrease the dose of Furosemide

12. A 45-year-old man presents to hospital for follow up at ambulatory clinic. He is known type 2 diabetic and hypertensive patient for the last 5 years. He was on hydrochlorothiazide 25mg PO daily, Simvastatin 20mg PO daily, and Metformin 500mg BID and Cmetidine 400mg PO daily from the initial. He complains severe leg pain that started suddenly in the morning. Laboratory test shows slightly increased serum urate level.

What is the most likely drug therapy problem suspected in this patient?

(A) Unnecessary drug therapy
(B) Adverse drug reaction
(C) Need additional drug therapy
(D) Dose too low

13. A 62-year-old woman presents to hospital with knee joint pain, reduced range of motion and brief joint stiffness after period of inactivity. She has history of peptic ulcer disease. Her osteoarthritis was treated with Acetaminophen 4gm daily for three weeks, but Acetaminophen trial therapy has failed. As a result physician changes her medication to Ibuprofen 400mg BID.

What drug therapy problem does this patient is facing?

(A) Need additional drug therapy
(B) Unnecessary drug therapy
(C) Dose too low
(D) Dose too high

14. A 32-year-old woman comes to clinic with a chief compliant of deep, aching character of joint pain, which resolves with motion and recurs with rest. She is diagnosed mild osteoarthritis. She has a preparation exercise training daily to involve in athletics competition in next month. Her attending physician wants to prescribe her analgesic.

What is the appropriate analgesic of choice in this patient?

(A) Tramadol
(B) Paracetamol
(C) Celecoxib
(D) Triamcinolone

8. A 62-year-old obese man with PUD and TII DM came for his monthly refill. He reports nausea and vomiting of two episodes since last visit. He has no other comorbidities. His current medications are Metformin BID, Pantoprazole 20 mg BID and Atorvastatin 20 mg daily at night. The senior physician requests your recommendation to add drugs for cardiovascular risk prevention.

What is the most appropriate drug you recommend for this patient?

(A) Aspirin
(B) Warfarin
(C) Clopidogrel
(D) Heparin

9. A two-year-old child was admitted to hematologic clinic with clinical signs of ecchymoses, hemarthroses, joint pain & swelling and erythema. On laboratory investigation the factor VIII level was found to be between (0.01-0.05 units/mL). From family history, his grandfather, who died 6 months ago had hemophilia A. Currently, she is worried about her son. A hematologist diagnosed the child with hemophilia A and he approached you to select appropriate first line treatment for this child.

What will be the most appropriate first line intervention for this child?

(A) Surgical intervention
(B) Recombinant factor VIII
(C) Desmopressin therapy
(D) Plasma derived products of factor VIII

10. A 36-year-old man has been taking phenytoin 100mg PO TID for his epilepsy for the last 12 months. But, recently he has been developing symptoms of fatigue, pallor, weakness and dyspnea on exertion. On further evaluation, neurologist requested you to evaluate for adverse drug reaction (ADR) from phenytoin. On your evaluation by using Naranjo ADR assessment tool, the current signs and symptoms of anemia is possibly from phenytoin.

What is the most appropriate intervention in management of ADR in this patient?

(A) Initiate Vitamin B_{12}
(B) Initiate Folic acid
(C) Initiate Iron-dextran
(D) Initiate Epoetin alpha

11. A 68-year-old woman presents to hospital for follow up at orthopedic clinic. Acetaminophen trial therapy has failed to relief her Osteoarthritis. She is also taking Amilodipine 5mg BID for the treatment of hypertension.

What is the appropriate next drug therapy initiated in this patient?

(A) Meloxicam
(B) Tramadol
(C) Nabumetone
(D) Indomethacin

5. A 40-year-old female patient, presented with chief complaint of nausea, vomiting and epigastric pain of three weeks duration. She reported brown colored loose stool. She has documented Penicillin allergy. Her physical examination shows epigastric tenderness and vital signs (T^0=37.2^{0}C, BP=128/80mmHg, pulse=76 beats/min). Laboratory values are Hemoglobin of 14mg/dL, Hematocrit of 41% and fecal antigen test is positive for Helicobacter pylori and others are within normal ranges. The attending physician decided to put her on Helicobacter pylori eradication therapy.

What triple therapy regimen is the most appropriate for this patient?

(A) Omeprazole 20mg BID + Clarithromycin 500mgBID + Metronidazole 500mgBID for 14 days
(B) Omeprazole 20mg BID + Clarithromycin 500mgBID + Amoxicillin 1gm BID for 14 days
(C) Omeprazole 20mg BID + Amoxicillin 1g BID + Tetracycline 500mg BID for 14 days
(D) Omeprazole 20mg BID + Amoxicillin 1g BID + Metronidazole 500mg BID for 14 days

6. A 50-year-old man is brought to the surgical ICU after emergency surgery. He has no past medical history. Currently, he is on Ibuprofen 800 mg alternating with Oxycodone 5 mg/acetaminophen 325 mg two tablets every 8 hours for surgical site pain, Dexamethasone 4mg oral IV daily and Lorazepam 1mg IV as an adjunct to antiemetic. An attending clinical pharmacist has identified the patient is experiencing sedation and amnesia.

What medication is most likely to cause for the identified ADR in this patient?

(A) Lorazepam
(B) Oxycodone
(C) Acetaminophen
(D) Dexamethasone

7. A 38-year-old known chronic liver disease (CLD) patient becomes somnolent and irritable. On physical examination his abdomen is very tender to mild palpation. Vital signs (BP=68/50mmHg, PR=102beats/min, Temperature=38.8°C, RR=18 breaths/min), oxygen saturation 98% on room air. The medical resident suspects spontaneous bacterial peritonitis (SBP) and orders a diagnostic paracentesis. Polymorph nuclear neutrophil (PMN) of ascitic fluid is 370 cells/μL, and Serum ascitic albumin gradient (SAAG) is 1.2 gm/dL. Upon return of laboratory investigation, physician consulted you to select appropriate antibiotics for spontaneous bacterial peritonitis

What appropriate empiric antibiotic do you recommend for this patient?

(A) Ampicillin 1gm IV four times daily
(B) Cefotaxime 1gm IV daily
(C) Metronidazole 1gm IV three times daily
(D) Cloxacillin 500mg four times daily

3. A 49-year-old professional singer was admitted to internal medicine ward with a diagnosis of Graves' disease. She was initially treated with Carbimazole; but developed a severe generalized rash, which necessitated withdrawal of the drug. A similar rash occurred within 2 weeks of starting propyl thiouracil (PTU). She is overtly thyrotoxicosis with a blood pressure of 160/50 mmHg, a pulse of 110 beats/min and a large thyroid gland with a vascular bruit. Laboratory results show an elevated free thyroxine and an undetectable thyroid-stimulating hormone.

What is the most appropriate treatment option for this patient on admission?

(A) Propranolol
(B) Propranolol and lithium
(C) Propranolol, lithium and surgical removal
(D) Propranolol, lithium and radioactive iodine

4. A 27-year-old woman comes with a 3-month history of intermittent hea intolerance, sweats, tremor, and severe muscle weakness, which has limited her ability to climb stairs. She is also bothered by the pounding of her heart and inability to keep food and liquids down. She previously received iodide drops with symptomatic improvement, but her disease recurred despite its continued administration. Thyroid function test shows total thyroxine of 6 mcg/dl (normal, 5–12); free thyroxine of 2 ng/dL (normal, 0.7–1.9); thyroid-stimulating hormone <0.01 μunits/mL (normal, 0.5–4.7); and a random blood glucose o 350 mg/dL (normal, 70–110). Her current BP is 180/90 mmHg with a pulse o 125 beats/minute, and a diffusely enlarged thyroid gland that is about four time normal (about 100 gm).

What is the next most appropriate intervention in this patient?

(A) Initially with thioamides followed by iodides
(B) Initially with thioamides followed by surgery
(C) Initially with thioamides followed by radioactive iodides
(D) Initially with thioamides followed by beta-blockers

Dm: HbA1c < 7% (normal 90-130 mg/dL)

~~Ethiopian Health Professionals Licensure Examination~~

Pharmacy

Dm — all end

[redacted]

PART TWO

BOOKLET CODE: 018
Number of Items: 100

SUBJECT CODE: 08
Time Allowed: 2:30 hours

DIRECTTIONS: Each of the following questions is followed by four possible alternative answers. Read each question carefully and **blacken** the letter of your best choice on the separate answer sheet provided.

1. A 45-year-old man with type 2 diabetes mellitus came to diabetic clinic for regular follow-up. He has been taking Metformin 1 gm daily. On laboratory investigation his Glycosylated hemoglobin test shows 10%. (HbA1c / A1c) 10% < 7%

What is the most appropriate next management?

(A) His diabetes is well controlled, continue current medication
(B) His diabetes is poorly controlled, needs addition of Insulin
(C) His diabetes is well controlled, reduce dose of current medication
(D) His diabetes is poorly controlled, needs addition of Glyburide

2. A 19-year-old woman develops secondary amenorrhea followed by symptoms of palpitations, nervousness, and heat intolerance and sweating. There is a strong family history of autoimmune disease. The physical examination shows that she appears anxious and sweaty, her pulse is 120 beats per minute and regular, and there is a smooth goiter with a soft bruit. There is tremor of the outstretched fingers. A pregnancy test is positive. Blood was sent to the laboratory for standard investigations, including T3 and T4.

Anti Goiter drug

What is the most appropriate drug therapy for this patient?

(A) Start low dose of Methimazole with Proponalol
(B) Start low dose of Carbimazole with Proponalol
(C) Start low dose of radioactive iodine with Proponalol during surgery
(D) Start low dose of Propylthiouracil with Proponalol

PTU (more potent drug

PTU $ methimazole Although both drug cross the placenta the drug (patient) choice in pregna patient i PTU b/c it crosses less

PTU = duetu longer half life which allows for once a day dosing

Adult dose - initially d 300mg BD Then usually 100-350 mg daily

Methimazole (Tapazole) adult dose. 5-40mg BD

21. A 55-year-old woman with complaints of palpable lump, nipple discharge and edema, redness and warmth on her breast came to a hospital. Her history shows that she gave no birth until now and she saw her menses at age of 10. She also smokes cigarette and drinks alcohol. The biopsy was taken and test was done which revealed a breast cancer.

What are the conditions that show this patient has breast cancer?
(A) Nulliparity, smoking cigarette and being age 55 years
(B) Seeing menses at age of 10 years and nulliparity
(C) Smoking cigarette, drinking alcohol and nulliparity
(D) Smoking cigarette and seeing menses at age of 10 years

22. A 50-year-old woman with a diagnosis of colorectal cancer was admitted to a hospital. The medications ordered for her colorectal cancer includes FOLFOX (Fluorouracil, Leucovorin, and Oxaliplatin).

What is the predicted importance of Leucovorin in this patient?
(A) Because of its chemotherapeutic effect
(B) To counter act the adverse effect of Fluorouracila
(C) To increase the absorption time of fluorouracil
(D) To decrease the adverse effect of Oxaliplatin

23. A hospital drug and therapeutics committee wants to prepare an essential medicines list.

What is the most relevant factor in the selection of medicines to be included in the list?
(A) Availability in the international market
(B) Unit prices of the medicines
(C) The local disease pattern
(D) The national disease pattern

24. A pharmacist working in a hospital's inventory management team wants to select pharmaceuticals for procurement in the next budget year. The pharmacist wants to purchase all pharmaceuticals in the essential medicine list. In the process, the pharmacist has listed all vital pharmaceuticals to be purchased. However, the allocated budget is inadequate.

What is the most appropriate next step?
(A) Select low cost essential medicines
(B) Select low cost desirable medicines
(C) Select slow moving medicines
(D) Select fast moving medicines

95. You are working in "X" hospital as a coordinator of pharmacy unit. When you assess the rational drug utilization practice in TB clinic there is misuse of drugs among patients.

What is the most appropriate intervention for rational drug use based on this situation?
(A) Special education about the drug
(B) Routine education about the drug
(C) Discussing on the issue in every morning section
(D) Preparing drug guidelines with dispenses procedure

96. A 68-year-old male smoker patient enters your pharmacy and gives you a prescription for management of his hypertension. When you discussed with him about his treatment, sometimes he misses doses and regarding tobacco, his physician told him to stop, but he continued to smoke.

What is the best next step in adherence therapy of this patient?
(A) Identify possible reasons why he smokes
(B) Do not dispense, as he is non-adherent
(C) Give him a transversal nicotine patch
(D) Tell him to stop smoking

97. You are working in a hospital and, therefore, you have to play your part in promotion of the community health as part the health care providing team.

What is the best strategy that helps you to promote the health of community?
(A) Offering drug information in advance
(B) Displaying leaflets on health topics
(C) Responding to drug information requests
(D) Providing advise upon request

98. A pharmacist was interested in measuring the amount of drug lost in a central pharmaceutical store. He collected the data through asking head of the store that he presumed knows everything about the information.

What method of data collection does the pharmacist use?
(A) Observation
(B) Focused group discussion
(C) Key informant interview
(D) Self administered questionnaire

91. A hospital pharmacy procurement team was requested to purchase digoxin a month ago. However, the team failed to avail the drug on time. As a result, an increased hospitalization of heart failure patients was observed.

Which ethical principle is most likely violated by the team?
(A) Autonomy
(B) Honesty
(C) Justice
(D) Non-maleficence

92. A pharmacist who works in a regional PFSA hub, received procurement requests from three referral hospitals. However, the stock was insufficient to fulfill all the three requests. Finally, the pharmacist used population size and disease morbidity to calculate the quantities of medicines to be received by each hospital.

What is the most relevant ethical principle in the pharmacist's decision?
(A) Autonomy
(B) Beneficence
(C) Non-maleficence
(D) Justice

93. A diabetic patient visited a pharmacy to refill a prescription containing Glibenclamide 2.5 mg/day. The patient was also taking Ciprofloxacin (500 mg bid) for the past two days and decided to discontinue the antibiotic. Despite the pharmacist's attempt to explain the possible consequences of such a decision, the patient refused to take ciprofloxacin or an alternative antibiotic. Finally, the pharmacist accepted the patient's decision and dispensed the glibenclamide.

What is the most relevant ethical principle in the pharmacist's reaction?
(A) Autonomy
(B) Confidentiality
(C) Transparency
(D) Accountability

94. A patient visited a community pharmacy with an authorized prescription for morphine 10 mg. The pharmacist checked the pharmacy records and found that the patient has bought 50 tablets of the same drug 3 days earlier.

What would be the most likely ethical course of action for the pharmacist?
(A) Dispensing the drug as prescribed
(B) Refusing to dispense the drug
(C) Contacting the prescriber for confirmation
(D) Reporting the case to the relevant authority